favorable prosecution of the present application and for indicating that the primary Tohge (1999) reference cited as the basis for all the rejections discussed below is not the appropriate reference for the reasons discussed below.

The objection to the Drawings is discussed below. Applicants have enclosed a proposed amendment the Drawings herewith. Please note that Applicants have amended Figure 1 so that it is labeled "prior art" which is fully supported in the specification. However, Applicants do not understand why the Examiner is requiring Applicants to label Figure 3 as "prior art". Applicants have not indicated that Figure 3 as "prior art". However, since the Examiner has indicated that it is required or the case will be held abandoned, Applicants propose Drawing corrections to Figure 3 as well. However, Applicants wish for the Examiner to explain his position more thoroughly. Accordingly, withdrawal of this objection is respectfully requested.

The rejection of Claims 1 and 11 under 35 U.S.C. § 112, second paragraph, is believed to obviated by the above amendment and the discussion below. The claimed invention has been clarified by the amendment to ensure that it is understood that it relates to a crosslinked resin after having heated and exposed a claimed material to radiation (See Amended Claim 1 above). The claimed material may be obtained from mixing at least one member selected from the group consisting of a simple metal alkoxide, complex metal alkoxide and silicon alkoxide, with acetylacetone, hexamethylenetetramine and at least one acid (See Amended Claim 1 above). Further, Claim 11, as well as the other claims, have been amended to remove the word "type." Finally, Claim 11 has been amended to specify that the "solvent comprises a hydrocarbon containing a 2-ethylhexanoate group." Accordingly, withdrawal of these grounds of rejection is respectfully requested.

The rejection of Claims 1-20 under 35 U.S.C. § 103(a) over Tohge (1999), in any combination with Valente et al., Cohn et al., Duncombe et al., Kamisawa, and/or Mori et al. is believed obviate by the above amendment and the following remarks.

As discussed during the Interview mentioned above, Applicants reviewed the primary reference Tohge(1999). However, Applicants have not been able to identify support of the Examiner's characterization of the disclosure of Tohge(1999). In fact, Tohge(1999) fails to disclose any process and/or resin where acetylacetone, AcAcH, is utilized. More specifically, Tohge(1999) discloses, at best, a resin and process utilizing benzoylacetone, BzAcH. Tohge(1999) merely mentions that "BzAcH was used in the present study, in contrast to acetylacetone, AcAcH, which has been used in the previous work [15,16]" (page 273, right column, lines 19-29). This disclosure is clearly not enabled by the Tohge(1999) as admitted by Tohge(1999) itself. Further, there is no disclosure in Tohge(1999) whatsoever that acetylacetone is used to obtain a crosslinked resin by mixing AcAcH with at least one member selected from the group consisting of a simple metal alkoxide, complex metal alkoxide and silicon alkoxide, as well as acetylacetone, hexamethylenetetramine and at least one acid.

As agreed at the Interview, the Examiner mischaracterized the invention disclosed in Tohge(1999) which was relied upon to support all of the outstanding rejections. Moreover, it was agreed that Tohge(1999) cites references, Tohge (1994) and Tohge (1991) cited at page 273, right column, lines 19-29 as reference numbers 15 and 16, that may be available as references. However, these references were not relied upon by the Examiner in the Outstanding Office Action, nor were they provided to Applicants.

In light of the above, Applicants suggested at the Interview that the Examiner supply

these references. While Applicants were preparing a response to the Outstanding Office Action, the Examiner provided Tohge (1994) and Tohge (1991) cited at page 273, right column, lines 19-29 as reference numbers 15 and 16. However, the Examiner did not characterize the disclosures of these references as related to the claimed invention.

In light of the above, no *prima facia* case of obviousness can possibly be maintained to support any of the rejections based on the disclosure according to Tohge(1999) alone, or in any combination with Valente et al., Cohn et al., Duncombe et al., Kamisawa, and/or Mori et al. Since the Office clearly improperly relies on Tohge(1999) as the primary reference in support of the rejections, Applicants respectfully request that all the rejections based on this reference be withdrawn.

It should be noted that Applicants have amended the claims in a non-narrowing manner to provide clarity and to place the claims in proper form as discussed above. These amendments do not change the scope of the claims, and therefore, can not possibly provide the basis for new grounds of rejections. Nor can the Office maintain the rejections of record in light of the above remarks. Taking all of these circumstances into consideration, Applicants respectfully submit that the Office can not possibly deem any ensuing Office Action as Final if new grounds of rejection are provided therein. In light of the above, an Office Action that is Final can not possibly be supported since the Office clearly failed to provide a *prima facia* case of obviousness due to the admitted mischaracterization of the primary reference Tohge(1999). According, any ensuing Office Action should be non-Final.

Applicants respectfully submit that the present application is now in condition for allowance. Should anything further be required to place this application in condition for allowance, the Examiner is requested to contact Applicants' attorney by telephone.

Respectfully submitted,

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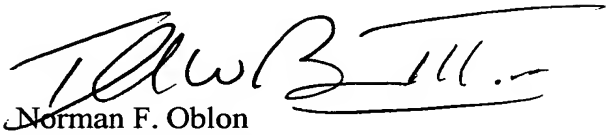
MAIER & NEUSTADT, P.C.



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HEREWITH

IN THE CLAIMS

Please amend the claims as follows.

--1. (Amended) A crosslinked resin, [characterized in that it comprises] comprising a material obtained from [the] mixing [of] at least one [or more] member selected from the group consisting of a simple metal [alkoxides] alkoxide, complex metal [alkoxides] alkoxide [or] and silicon [alkoxides] alkoxide, [of] with acetylacetone, [of] hexamethylenetetramine and [of an] at least one acid, and then heating said mixture and exposing it to radiation.

2. (Amended) The crosslinked resin as claimed in claim 1, [characterized in that] wherein the metal alkoxide is [of] a titanium alkoxide [type].

3. (Amended) The crosslinked resin as claimed in claim 2, [characterized in that] wherein the metal alkoxide is [of] a zirconium alkoxide [type].

4. (Amended) The crosslinked resin as claimed in claim 1, [characterized in that it comprises] further comprising a complex lead/zirconium and titanium alkoxide.

5. (Amended) The crosslinked resin as claimed in claim 4, [characterized in that] wherein the complex lead, zirconium and titanium alkoxide is obtained from lead carboxylate, zirconium alkoxide and titanium alkoxide.

6. (Twice Amended) The crosslinked resin as claimed in claim 1, [characterized in that] wherein the acid is acetic acid.

7. (Twice Amended) The crosslinked resin as claimed in claim 1, [characterized in that] wherein the acid is propanoic acid.

8. (Twice Amended) The crosslinked resin as claimed in claim 1, [characterized in that] wherein the acid is trifluoroacetic acid.

9. (Twice Amended) The crosslinked resin as claimed in claim 1, [characterized in that it additionally comprises] further comprising at least one photoinitiating agent.

10. (Amended) A process for the manufacture of a ceramic or of a glass, comprising:

[- the preparation of] preparing a solution [of] comprising at least one member selected from the group consisting of a simple metal [alkoxides] alkoxide, complex metal [alkoxides or] alkoxide, and silicon [oxides] oxide in acetylacetone;

[- the production of a resin by reaction] reacting under hot conditions [of] an acid and [of] hexamethylenetetramine with said solution to produce a resin;

[- the deposition of] depositing the resin on a substrate;

[- the exposure of] exposing the resin to ultraviolet radiation;

[- the calcination of] calcining the radiation-exposed resin, in order to obtain the ceramic or the glass.

11. (Amended) The process of the manufacture of a ceramic or a glass as claimed in claim 10, [characterized in that] wherein the solution [of the simple metal alkoxides, complex metal alkoxides or silicon alkoxides is prepared in the presence of] comprises a heavy alcohol [of] containing a 2-ethylhexanol [typle] group.

12. (Twice Amended) The process for the manufacture of ceramic or of glass as claimed in claim 10, [characterized in that] wherein the simple metal [alkoxides are] alkoxide is at least one member selected from the group consisting of zirconium alkoxide [or] and titanium alkoxide.

13. (Twice Amended) The process for the manufacture of ceramic or of glass as claimed in claim 10, [characterized in that it comprises a stage of preparation of] further comprising preparing the complex metal [alkoxides] alkoxide from lead carboxylate, zirconium alkoxide and titanium alkoxide.

14. (Twice Amended) The process for the manufacture of ceramic or glass patterns at the surface of a substrate as claimed in claim 10, [characterized in that:] wherein

[- exposure to radiation] exposing the resin is carried out through a mask[,] so as to define at least one radiation-exposed [patterns] pattern and at least one non-radiation-exposed [patterns] pattern; and further comprising

[- it comprises the dissolution of] dissolving the non-radiation-exposed patterns in a solvent.

15. (Amended) The proces for the manufacture of a ceramic or of a glass as claimed in claim 14, [characterized in that] wherein the solvent [is of dilute] comprises at least one member selected from the group consisting of acetic acid [and/or] and 2-ethylhexanol [type].

16. (Twice Amended) The process for the manufacture of a ceramic or of a glass as claimed in claim 10, [characterized in that] wherein the substrate is glass.

17. (Twice Amended) The process for the manufacture of a ceramic or of a glass as claimed in claim 10, [characterized in that] wherein the substrate is silicon.

18. (Twice Amended) A capacitor, [characterized in that it is obtained from the process for the manufacture of a] comprising the ceramic or [of a] the glass [as claimed in] manufactured by the process according to claim 10.

19. (Twice Amended) A piezoelectric transducer, [characterized in that it is obtained from the process for the manufacture of a] comprising the ceramic or [of a] the glass [as claimed

in] manufactured by the process according to claim 10.

20. (Twice Amended) A ferroelectric memory, [characterized in that it is obtained from the process for the manufacture of a] comprising the ceramic or [of a] the glass [as claimed in] according to claim 10.--

--Claims 21-22 are added.--